

Appendix D

US Smoke Organizations and Capabilities

Most chemical command and control headquarters are Reserve Component organizations. In the active Army, there are few battalion-level chemical organizations. Most corps and division-level smoke assets are

company-sized elements or smaller. Task organizing platoons from these companies provide the commander a mission-tailored mix of assets normally associated with battalion and higher levels.

This appendix describes the capabilities, limitations, and structure of chemical command and control headquarters, smoke units, and chemical unit task organizations.

Chemical Command and Control Headquarters

The two major chemical command and control headquarters are the corps chemical brigade (HHD) (TOE 03-4721) and the corps chemical battalion (HHD) (TOE 03-476L).

Chemical Brigade

Chemical brigades normally are assigned one to each corps. Each chemical brigade is composed of a headquarters and headquarters detachment (HHD) and two to five chemical battalions. The brigade

can provide limited administrative support, logistics, mission/operations planning, and execution supervision for the chemical battalions. The chemical brigade does not have organic supply and transportation assets for sustaining its assigned battalions.

Chemical Battalion

Chemical battalions usually are assigned to a chemical brigade at corps, or one per TAACOM. Each chemical battalion is composed of a

headquarters and headquarters detachment and two to five chemical companies. The battalion can provide limited administrative support, logistics, mission/operations planning, and execution supervision for the chemical companies. The chemical battalion does not have a support platoon; therefore, it has no organic supply and transportation assets for sustaining its assigned companies.

Smoke Generator Units

The major smoke generator unit tactical organizations are—

- Corps Chemical Company (SG) (Motorized) (TOE 03-067J).
- Corps Chemical Company (Smoke/Decon) (TOE 03-257J).
- Corps Chemical Company (SG) (Mechanized) (TOE 03-077J).
- Heavy Division Chemical Company (Mechanized Smoke Platoon) (TOE 03-387).
- Division Chemical Company (Airborne/Air Assault) (TOE 03-027J500/03-057L).
- Chemical Company (Smoke/Reconnaissance/Decon), Ar-

mored Cavalry Regiment (TOE 03-377L).

There are two different types of motorized systems and one mechanized smoke generator system. The M3A4 and the M157 are motorized, and the M1059 is mechanized.

Motor smoke units equipped with the M3A4 have 36 to 48 smoke generators mounted on 18 to 24 M998 series HMMWVs or M151 series 1/4-ton trucks with trailers. These smoke systems provide stationary smoke only. Depending on terrain,

the company is 100-percent mobile and is completely air-transportable.

Motor smoke units equipped with the M157 have 36 to 48 smoke generators mounted on 18 to 24 M1037 HMMWVs. This company, also, is 100-percent mobile and is completely air-transportable.

Mechanized smoke units equipped with the M1059 smoke generator carrier have six (heavy division company) or seven (mechanized smoke company) M1059s per platoon. This element is 100-percent mobile on any terrain and is completely air-transportable.

Corps
Chemical Company
(SG) (Motorized)

The motorized smoke generator company provides large-area smoke support for tactical and rear operations. The two platoons of the motorized smoke company have three squads each. There are 24 smoke generators per platoon. Each platoon (if weather, terrain, and the situation are favorable) can support up to a maneuver brigade.

Corps
Chemical Company
(Smoke/Decon)

The corps smoke/decon chemical company or dual-purpose company provides smoke and decontamination support to the light infantry division or units located in the division or corps rear area. This company has four dual-purpose platoons. Each of the four platoons can provide both smoke and decontamination support. However, the platoon can do only one mission at a time. Each platoon has two dual-purpose squads and one resupply squad. The company has 48 smoke generators — 12 per platoon.

The most difficult task of this company is the transition from decontamination to smoke support (or the reverse). This transition can be carried out at the company CP or in the BSA.

corps
Chemical Company
(SG) (Mechanized)

The mission of the chemical company (smoke generator-mechanized) is to provide smoke concealment for maneuver units and other critical areas. This company was developed because motorized companies lack the necessary armor protection and mobility to operate forward to support close operations in mid- and high-intensity conflict. It is organized into three smoke platoons. Each platoon has 14 smoke generators. (Two generators are mounted on each armored vehicle.) The seven vehicles form seven mobile point sources.

Heavy Division
Chemical Company
(Mechanized
Smoke Platoon)

The smoke platoon of the chemical company (heavy division) gives the division a large-area smoke capability. It also provides limited site selection for decontamination squads. The platoon has six M1059 smoke generator systems. Each of the two smoke squads has three M1059s with six smoke generators per squad.

Division
Chemical Company
(Airborne/Air Assault)

This company provides smoke and decontamination support to the airborne or air assault division. This company has three dual-purpose platoons. Each of the three platoons can provide both smoke and decontamination support. However, the platoon can do only one mission at a time. Each platoon has two dual-purpose squads and one resupply squad. The company has 36 generators — 12 per platoon.

The most difficult task of this company is the transition from decontamination to smoke support (or the reverse). This transition can be carried out at the company CP or in the BSA.

Chemical Company
(Smoke/Recon/Decon)
Armored Cavalry
Regiment

This company provides smoke and decontamination support to the armored cavalry regiment. The company has one dual-purpose platoon. Unlike other dual-purpose platoons, this platoon has seven M1059 smoke generator systems. The platoon can provide both smoke and decontamination support. However, the platoon can do only one mission at a time. The platoon has two dual-purpose squads and one resupply squad, with a total of 14 smoke generators.

Chemical Unit Task Organizations

The three unique chemical unit task organizations are—

- Chemical-engineer task force.
- Chemical company team.
- Chemical battalion task force.

Chemical-Engineer
Task Force

The chemical-engineer task force attaches one or more smoke or dual-purpose chemical platoons to the division engineer battalion. This provides a habitual association for logistical support for the chemical

platoons and is particularly useful when the platoon is supporting obstacle emplacement or covering force operations.

Chemical Company Team

The chemical company team attaches one or more platoons to a chemical company for specific missions. For example, a smoke platoon from a corps motorized smoke company could be attached to a heavy division chemical com-

pany for command and control during a particular mission.

Chemical Battalion Task Force

The chemical battalion task force attaches one or more platoons or companies to a chemical battalion for specific missions. Every smoke company in a corps chemical

brigade could be attached to a particular chemical battalion when that battalion is supporting the corps main effort. For example, if a division had to conduct a river crossing as part of the corps scheme of maneuver. The corps commander might task organize most of his smoke generator companies under one battalion for direct support of this mission.

Capabilities

Tables 22 and 23 show smoke platoon area coverage based on the type of platoon and the number

and types of generators or point sources.. The coverage is given in

kilometers; and the prime movers are listed for the generators.

Table 22. Smoke platoon coverage—mobile.

Type of Unit	SG & Prime Mover	No. of Point Sources	Average Smoke Cloud Coverage (in Meters)			
			Crosswind Width		Downwind Depth	
			Haze	Blanket	Haze	Blanket
Corps Mechanized Smoke Plt	M1059	7	600–1,500	550–1,300	100–3,600	50–1,400
Division Mechanized Smoke Plt	M1059	6	550–1,400	550–1,200	100–3,600	50–1,400
Corps Smoke/Decon Plt	M157 & M1037	6	550–1,400	550–1,200	100–3,600	50–1,400
ACR Smoke/Decon Plt	M1059	6	550–1,400	550–1,200	100–3,600	50–1,400
Corps Motor Smoke Plt	M157 & M1037	12	1,100–2,800	1,00–2,400	100–3,600	50–1,400

Table 23. Smoke platoon coverage—stationary.

Type of Unit	SG & Prime Mover	No. of Point Sources	Average Smoke Cloud Coverage (in Meters)			
			Crosswind Width		Downwind Depth	
			Haze	Blanket	Haze	Blanket
Corps Motor Smoke Plt	M3A4 & M151	24	1,000–3,400	500–1,700	600–10,000	600–10,000
	M3A4 & M998	12	500–1,700	300–900	600–10,000	600–10,000
Corps Smoke/Decon Plt	M3A4 & M988	6	300–900	100–500	600–10,000	600–10,000
Div (Abn) Smoke/Decon Plt	M3A4 & M988	6	300–900	100–500	600–10,000	600–10,000
Div (AA) Smoke/Decon Plt	M3A4 & M151	6	300–900	100–500	600–10,000	600–10,000